## The November combined meeting in Ellensburg was cancelled due to bad weather so there are no minutes to report

**BC Wagonmaster's Report:**

BC Wagonmaster Harley Waterson was kind enough to send me a report on their recent filed trips and a list of upcoming trips.

Field Trip report, November 2005
Sorry for not having a report for the last couple of months.

Recently we had a trip up the Coquihalla to collect soapstone, and we had about a dozen people show up, and everyone got everything they could carry! The soapstone isn't the best of quality, but the price is right! If you have some patience hunting the pile of materials, you can scratch at the pieces to find the better ones. I hope we see some nice carvings at the big show in April!

We had a trip to Wahleach bar on Sunday November 6. This is one of the Fraser river bars, and is one of the lower ones between Agassiz and Hope. The owners of the Bridal Falls coffee shop are also rockhounds, and in a nearby building they had some sale minerals & other rockhound goodies just for us!
Several new rockhounds came on the trip, and the weather was just fine! Reasonably warm, a little rain, and lots of stuff to collect. Alas, no jade this trip.

Jade West is the next trip, which will be on Sunday November 20. Jade West is the jade mining company which has a number of jade claims in BC, including the "polar" claim.
The trip is to their yard where the jade is exported from. In the yard are tons of jade, jade chunks, and cut pieces of a variety of sizes down to chips. There is also some BC rhodonite, and last year there were a few pieces of some jade from the USSR which is a white/grey/honey-brown mix. This will cost you money, so bring some cash. The price last year was $5 a pound. ( a bargain ! ) You should bring a squirt bottle, and maybe a bucket if you plan to pick up a few pieces. If raining, bring suitable footwear, and rain gear as it's outside, and puddles may accumulate!.
The meeting location is the Campbell River store parking lot. This is located in Surrey at the intersection of 176th street, and 8th Ave at 10:00AM. Yes, this is just north of the "truck crossing". Sigge Rhode from the Hastings Club has organized this trip.

**December 4 ( Sunday ) is another Fraser River bar field trip, this time to the "Peg Leg Bar" near Chilliwack.** The meeting place will be the Tim Horton's parking lot a couple of blocks south ( right ) of the #1 Freeway, on the Sardis exit, # 119. The exit signs say Sardis & Vedder Road.
Peg Leg bar has smaller rocks, so if you are looking for tumbler material, this would be a great trip. We can drive right to the bar, and even onto it. Drive by rock hunting. Gord Pinder from the Maple Ridge club is the official leader for this trip.

For the field trip, bring warm clothing, rain wear, rock hammer, squirt bottle, and something to carry your treasures! The bars can be quite windy, so please dress appropriately, with proper hiking boots. Materials to be found are endless granites, endless green "stuff", and some collectable agate, jasper, serpentine, sillimanite, and perhaps the elusive jade. There is ample area to walk around on well away from the river, so bring the kids!

**January 8 ( Sunday ) will be a trip to Yale bar.** Again, you may find the same materials from the river, except that bigger material is available on the Yale bar. If there is snow covering the bar we may divert to another bar farther downstream. If there is a snowstorm, stay home. Leader is Harley Waterson, Richmond club, 604-590-3289. The meeting place will be the Bridal Falls Coffee shop at 9:00AM.

For people who have not been on these trips before, the Bridal Falls coffee shop is at exit #135 on highway #1 between Chilliwack and Hope. This is the same exit for the Agassiz cut-off, and Dusty's Dinotown! The coffee shop is attached to the Shell gas station. If you miss the exit, just take the next one, and return along the frontage road.

Meet there by 9:00AM ready to go! Come early, have some breakfast, and check out the rocks for sale in the shop.

**February 12: Alexandra Bar.** Again, if we get snowed out, we'll head to a downstream bar, or visit the Yale bar if we are skunked in January. This bar is a healthy hike down, with a hike back up loaded down with collectables! Those not able to endure a strenuous hike should stick to the other bar trips.
Leader Harley Waterson from the Richmond club 604-590-3289

**March 12: Gord Pinder (604-870-4779) from the Maple Ridge club is taking a group to Woodside Mountain.** I have never been to this location, so I'm eager to visit this one! Pyrites, both small cubes, and massive, plus a green chert can be found on this trip. The meeting place is at the Sasquatch Inn at 9:00AM. This is located on Hiway #7, in Harrison Mills ( check a map ). This is between Haney and Agassiz. Look for the sign that says "Hemlock Valley Ski Area" same turnoff from Highway #7.

**pril 23, Cam Bacon (604-854-1711) from the Abbotsford club is leading a group to the Harrison Lake Fossils location.** Again, the meeting place is the Sasquatch Inn on highway #7. This location has been a popular spot for clam fossils, and belemnite fossils. The clams are fairly easy to pick up, however the belemnites usually require some encouragement with hammers & chisels to set them free. This trip is ~20Km off the paved roads on a logging road. Fill up with gas, and bring a lunch.

**Rendezvous 2006:**
For those that have never attended, this is the "big" field trip event of the year. Each year, one of the interior clubs hosts all of the BC clubs over the May long weekend. Field trips on Saturday & Sunday, live auction on Saturday night, catered dinner Sunday night, and additional fun! This year's Rendezvous is being hosted by the Thompson Valley Club ( Kamloops ) and will be based at Heffley creek. Originally this was to be held in Barriere, however the organizers were challenged by the local hotels, campgrounds and caterers being booked up for forestry crews, and a baseball tournament. Heffley creek is about 15-20 minutes drive north of Kamloops which offers more choices for camping, RV'ing, and hotels ( for people like me! )

Mark down the dates of May 19-22! See you there. More info to follow, or you can check the Lapidary Society web site.
http://www.lapidary.bc.ca/trips.html

## How Minerals Are Formed

While we handle and work with minerals it is interesting to think about how they were formed. Some knowledge of this adds more fascination to our hobby.

There are approximately 2,000 different minerals and they are formed in a number of ways. Many important minerals are formed from molten rock-material by cooling and solidification within the earth's crust and on the surface. The hot fluid mass of rock material is called magma when it is beneath the surface and lava when it flows on to the earth's surface. Quartz, feldspar and the other minerals in the common rock, granite, are formed by the slow cooling of magma deep within the earth's crust; the granite is exposed at the earth's surface through uplift and the removal of overlying rocks by erosion. Those minerals that begin to form early during the solidification of the granitic magma may complete their growth without interference and thus develop perfect crystal form. On the other hand, the later minerals are usually quite irregular in outline, for they must occupy the interstitial areas remaining between the minerals of earlier growth. Unlike granitic magma, lava cools and solidifies fairly quickly and the minerals in volcanic rocks are usually so small that a microscope is needed to see them.

Certain minerals are formed by the replacement of preexisting minerals within the earth's crust. Transformation occurs under the influence of heat, pressure and migrating fluids (metamorphism). Changed physical and chemical conditions result in certain minerals in the original rocks becoming unstable and consequently susceptible to replacement by new minerals, more in harmony with the altered environment. The new minerals develop in the metamorphic rocks while the rocks remain essentially solid. Some examples of such minerals are garnet, staurolite, kyanite, andalusite, sillimanite and cordierite. Some minerals are formed from other minerals by chemical weathering processes at or near the earth's surface. Chemical weathering processes include solution, oxidation, carbonation and hydration. Under the oxidizing influence of surface waters, for example, chalcopyrite alters to malachite, azurite, cuprite and native copper. Galena alters to cerussite and anglesite. Sphalerite alters to smithsonite and hemimorphite. The zone of oxidation in which these minerals form is usually relatively shallow and extends from the surface down to the water-table.

Minerals are also formed by precipitation from solutions in water of material dissolved from preexisting rocks. For example, Gypsum is formed by the slow evaporation of water containing dissolved calcium sulphate. Another mode of formation is sublimation from vapors. Bright yellow crystals of sulphur grow near the crater rims of active volcanoes, as a direct sublimation or cooling product of sulphur bearing vapors.

It is only under favorable conditions, when minerals grow freely and slowly without interruption, that well-formed crystals are developed. Good crystals of minerals may be found lining the walls of open fractures, solution cavities or vesicles in rocks. Some of them may form late in the solidification of an igneous rock (e. g. granite and basalt) in cavities kept open by accumulations of gases and vapors.

via BEMS Tumbler 11/05; West Seattle Petroglyphs, 6-7/05; via Hy Grader 2/05; via Rock Chip Reporter 12/04

## White Buffalo Turquoise

When discovered in the Dry Creek Mine in the Shoshone Indian Reservation near Battle Mt, Nevada in 1993, they (the discoverers) were not sure what is was. Because of its hardness, it was decided to have it assayed. Their suspicions proved correct. It was, in fact, white turquoise. It was not until 1996, however, that it was finally made into jewelry.

Turquoise gets its color from the heavy metals in the ground where it forms. Blue turquoise forms where there is copper present (most Arizona turquoise). Green turquoise forms where iron is present (most Nevada turquoise). White turquoise, where there are no heavy metals present, turns out to be rare. To date, no other vein of white turquoise has been found anywhere else. When this vein runs out, that will be the last of it.

From Rockhound Gazette & others via Stoney Statements, 2002; via The Petrified Digest 11/05